

SKILLS PRACTICE 40

For use with Section 5-6

Factoring Quadratic Trinomials—

First Coefficient Not 1

NAME

KEY

DATE

Factor as the product of linear binomials or write *prime*.

1. $2x^2 + 5x + 2$ $(2x+1)(x+2)$

2. $2x^2 + 7x + 3$ $(2x+1)(x+3)$

3. $2x^2 + x - 3$ $(2x+3)(x-1)$

4. $2x^2 + 5x - 3$ $(2x-1)(x+3)$

5. $2x^2 - 7x + 3$ $(2x-1)(x-3)$

6. $3x^2 - 13x + 4$ $(3x-1)(x-4)$

7. $3x^2 - 8x + 4$ $(3x-2)(x-2)$

8. $4x^2 - 4x - 3$ $(2x+1)(2x-3)$

9. $2x^2 - 7x - 15$ $(2x+3)(x-5)$

10. $25x^2 - 10x - 3$ $(5x+1)(5x-3)$

11. $9x^2 - 1$ $(3x+1)(3x-1)$

12. $4x^2 - 20x + 25$ $(2x-5)^2$

13. $2x^2 + x + 1$ Prime

14. $6x^2 - x - 1$ $(3x+1)(2x-1)$

15. $4x^2 - 5x - 1$ Prime

16. $6x^2 + 5x - 6$ $(3x-2)(2x+3)$

17. $3x^2 - 10x + 3$ $(3x-1)(x-3)$

18. $2x^2 - 3x - 2$ $(2x+1)(x-2)$

19. $4x^2 - x - 5$ $(4x-5)(x+1)$

20. $3x^2 + 2x + 1$ $(3x+1)^2$

Multiply.

21. $(2x+2)(3x-2)$ $6x^2+2x-4$

22. $(2x+1)^2$ $4x^2+6x+1$

23. $(x-5)(x+5)$ x^2-25

24. $(x+9)(2x-3)$ $2x^2+15x-27$

25. $(x-1)^2$ x^2-2x+1

SKILLS PRACTICE 41

For use with Section 5-7

Factoring a Difference of Two Squares

NAME

KEY

DATE

Factor as the product of linear binomials or write *prime*.

1. $x^2 - 4$ $(x+2)(x-2)$

2. $x^2 - 9$ $(x+3)(x-3)$

3. $x^2 - 16$ $(x+4)(x-4)$

4. $x^2 - 25$ $(x+5)(x-5)$

5. $4x^2 - 1$ $(2x+1)(2x-1)$

6. $9x^2 - 1$ $(3x+1)(3x-1)$

7. $4x^2 - 9$ $(2x+3)(2x-3)$

8. $9x^2 - 49$ $(3x+7)(3x-7)$

9. $1 - 4x^2$ $(1+2x)(1-2x)$

10. $25 - 36x^2$ $(5+6x)(5-6x)$

11. $x^2 - 1$ $(x+1)(x-1)$

12. $x^2 + 1$ Prime

13. $x^2 - 25$ $(x+5)(x-5)$

14. $x^2 + 25$ Prime

15. $x^2 - 81$ $(x+9)(x-9)$

16. $x^2 - 8$ $(x+\sqrt{8})(x-\sqrt{8})$

17. $4 - x^2$ $(2+x)(2-x)$

18. $9 - 25x^2$ $(3-5x)(3+5x)$

19. $12 - x^2$ $(\sqrt{12}+x)(\sqrt{12}-x)$

20. $x^2 - y^2$ $(x+y)(x-y)$

Factor.

21. $x^2 + 5x + 6$ $(x+3)(x+2)$

22. $3x^2 + 4x + 1$ $(3x+1)(x+1)$

23. $4x^2 - 3x - 1$ $(4x+1)(x-1)$

24. $x^2 - 4x + 4$ $(x-2)^2$

25. $x^2 - 2x + 1$ $(x-1)^2$